Chapter 1
Department of Defense Decision Support Systems

1.0. Overview

1.0.1. Purpose

This chapter provides background information about the environment in which the Department of Defense must operate to acquire new or modified materiel or services.

1.0.2. Contents

Section 1.1 presents an overview of each of the three, principle, decision support systems used in the Department of Defense to acquire materiel and services, and describes the integration of those systems. Sections 1.2 through 1.3 provide details of each of these systems: Section 1.2 discusses the Planning, Programming, Budgeting, and Execution process, employed by the Department of Defense to conduct strategic planning and make resource allocation decisions; Section 1.3 discusses the Joint Capabilities Integration and Development System used to determine military capability needs; and Section 1.4 discusses the formal Defense Acquisition System used to acquire that capability.

1.1. Integration of the DoD Decision Support Systems

The Department of Defense has three principal decision-making support systems, all of which were significantly revised in 2003. These systems are the following:

Planning, Programming, Budgeting and Execution Process—The Department's strategic planning, program development, and resource determination process. The PPBE process is used to craft plans and programs that satisfy the demands of the National Security Strategy within resource constraints.

Joint Capabilities Integration and Development System—The systematic method established by the Joint Chiefs of Staff for assessing gaps in military joint warfighting capabilities and recommending solutions to resolve these gaps. To ensure effective integration of the capabilities identification and acquisition processes, the JCIDS guidance (CJCS Instruction 3170.01 and Manual 3170.01) was developed in close coordination with the revision to the acquisition regulations (DoD 5000 series).

Defense Acquisition System—The management process by which the Department acquires weapon systems and automated information systems. Although the system is based on centralized policies and principles, it allows for decentralized and streamlined execution of acquisition activities. This approach provides flexibility and encourages innovation, while maintaining strict emphasis on discipline and accountability.

Together, illustrated in Figure 1, the three systems provide an integrated approach to strategic planning, identification of needs for military capabilities, systems acquisition, and program and budget development. The remainder of this section provides a brief introduction to each of these decision support systems.

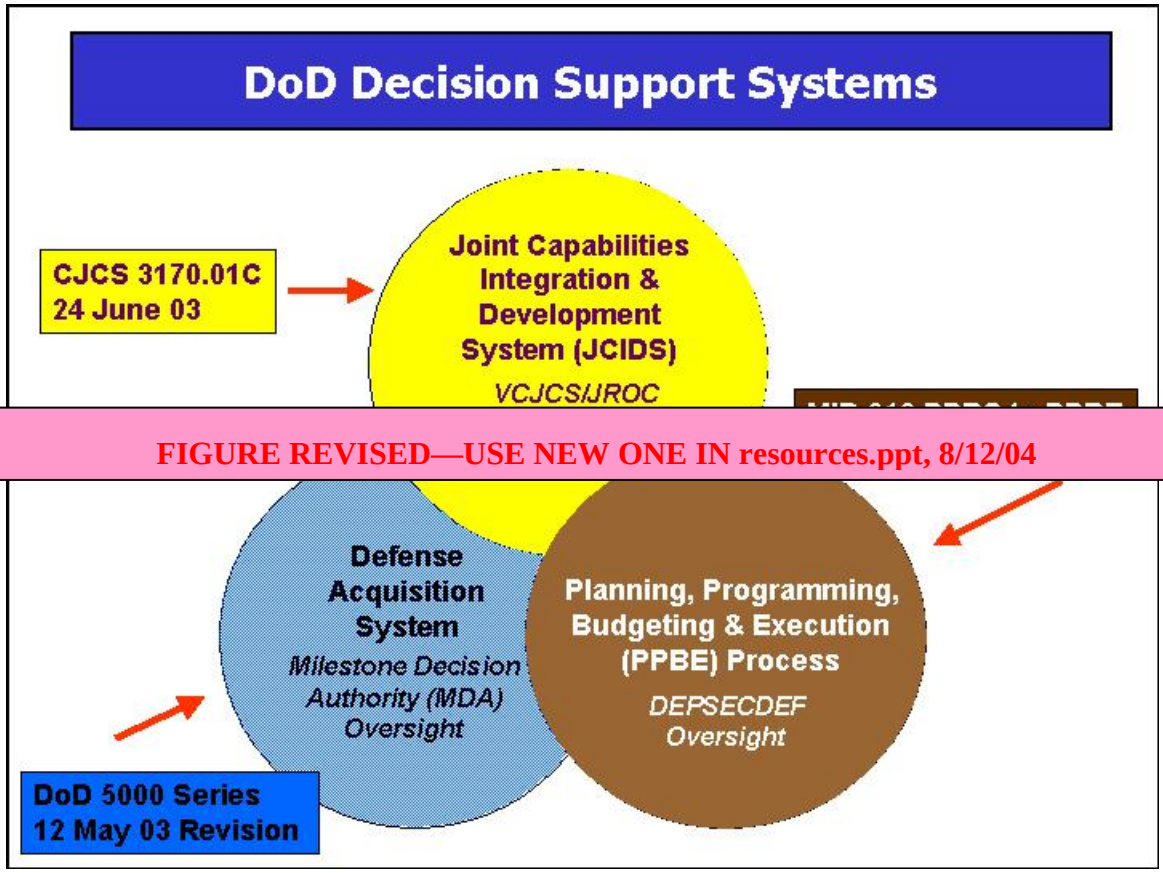

Figure 1. DoD Decision Support Systems

1.2. Planning, Programming, Budgeting and Execution (PPBE) Process

The purpose of the PPBE process is to allocate resources within the Department of Defense. It is important for program managers and their staffs to be aware of the nature and timing of each of the events in the PPBE process, since they may be called upon to provide critical information that could be important to program funding and success.

In the PPBE process, the Secretary of Defense establishes policies, strategy, and prioritized goals for the Department, which are subsequently used to guide resource allocation decisions that balance the guidance with fiscal constraints. The PPBE process consists of four distinct but overlapping phases:

Planning. The planning phase of PPBE, which is a collaborative effort by the Office of the Secretary of Defense and the Joint Staff, begins with a resource informed articulation of national defense policies and military strategy known as the Strategic Planning Guidance. The Strategic Planning Guidance is used to lead the planning process, now known as the Enhanced Planning Process. This process results in fiscally constrained guidance and priorities—for military forces, modernization, readiness and sustainability, and supporting business processes and infrastructure activities—for program development in a document known as the Joint Programming Guidance. The Joint Programming Guidance is the link between planning and programming, and it provides guidance to the DoD Components (military departments and defense agencies) for the development of their program proposal, known as the Program Objective Memorandum (POM).

Programming. The programming phase begins with the development of a POM by each DoD Component. This development seeks to construct a balanced set of programs that respond to the guidance and priorities of the Joint Programming Guidance within fiscal constraints. When completed, the POM provides a fairly detailed and comprehensive description of the proposed programs, including a time-phased allocation of resources (forces, funding, and manpower) by program projected six years into the future. In addition, the DoD Component may describe important programs not fully funded (or not funded at all) in the POM, and assess the risks associated with the shortfalls. The senior leadership in OSD and the Joint Staff review each POM to help integrate the DoD Component POMs into an overall coherent defense program. In addition, the OSD staff and the Joint Staff can raise issues with selected portions of any POM, or any funding shortfalls in the POM, and propose alternatives with marginal adjustments to resources. Issues not resolved at lower levels are forwarded to the Secretary for decision, and the resulting decisions are documented in the Program Decision Memorandum.

Budgeting. The budgeting phase of PPBE occurs concurrently with the programming phase; each DoD Component submits its proposed budget estimate simultaneously with its POM. The budget converts the programmatic view into the format of the Congressional appropriation structure, along with associated budget justification documents. The budget projects resources only two years into the future, but with considerably more financial details than the POM. Upon submission, each budget estimate is reviewed by analysts from the office of the Under Secretary of Defense (Comptroller) and the Office of Management and Budget (OMB). The purpose of their review is to ensure that programs are funded in accordance with current financial policies, and are properly and reasonably priced. The review also ensures that the budget documentation is adequate to justify the programs presented to the Congress. Typically, the analysts provide the DoD Components with written questions in advance of formal hearings where the analysts review and discuss the budget details. After the hearings, each analyst prepares a decision document (known as a Program Budget Decision, or PBD) for the programs and/or appropriations under his or her area of responsibility. The PBD proposes financial adjustments to address any issues or problems identified during the associated budget hearing. The PBDs are staffed for comment and forwarded to the Deputy Secretary of Defense for decisions. These decisions are then reflected in an updated budget submission provided to the OMB. After that, the overall DoD budget is provided as part of the President's Budget request to the Congress.

Execution. The execution review occurs simultaneously with the program and budget reviews. The purpose of the execution review is to provide feedback to the senior leadership concerning the effectiveness of current and prior resource allocations. Over time, metrics are being developed to support the execution review that will measure actual output versus planned performance for defense programs. To the extent performance goals of an existing program are not being met, the execution review may lead to recommendations to adjust resources and/or restructure programs to achieve desired performance goals.

PPBE Biennial Cycles. In 2003, the Department adjusted its planning, programming and budgeting procedures to support a two-year cycle that results in two-year budgets. The revised process is described in Management Initiative Decision (MID) 913, dated May 22, 2003. The concept in MID 913 is consistent with submission of a biennial DoD budget that is part of the President's Budget request to Congress for even-numbered fiscal years (FY) (e.g., the FY 2004 President's Budget, submitted to Congress in March 2003, contained justification material for both FY 2004 and FY 2005). In this cycle, the even-numbered years are called on-years, while

the odd-numbered years are called off-years. Figure 2 displays a nominal timeline for the PPBE phases in an on-year.

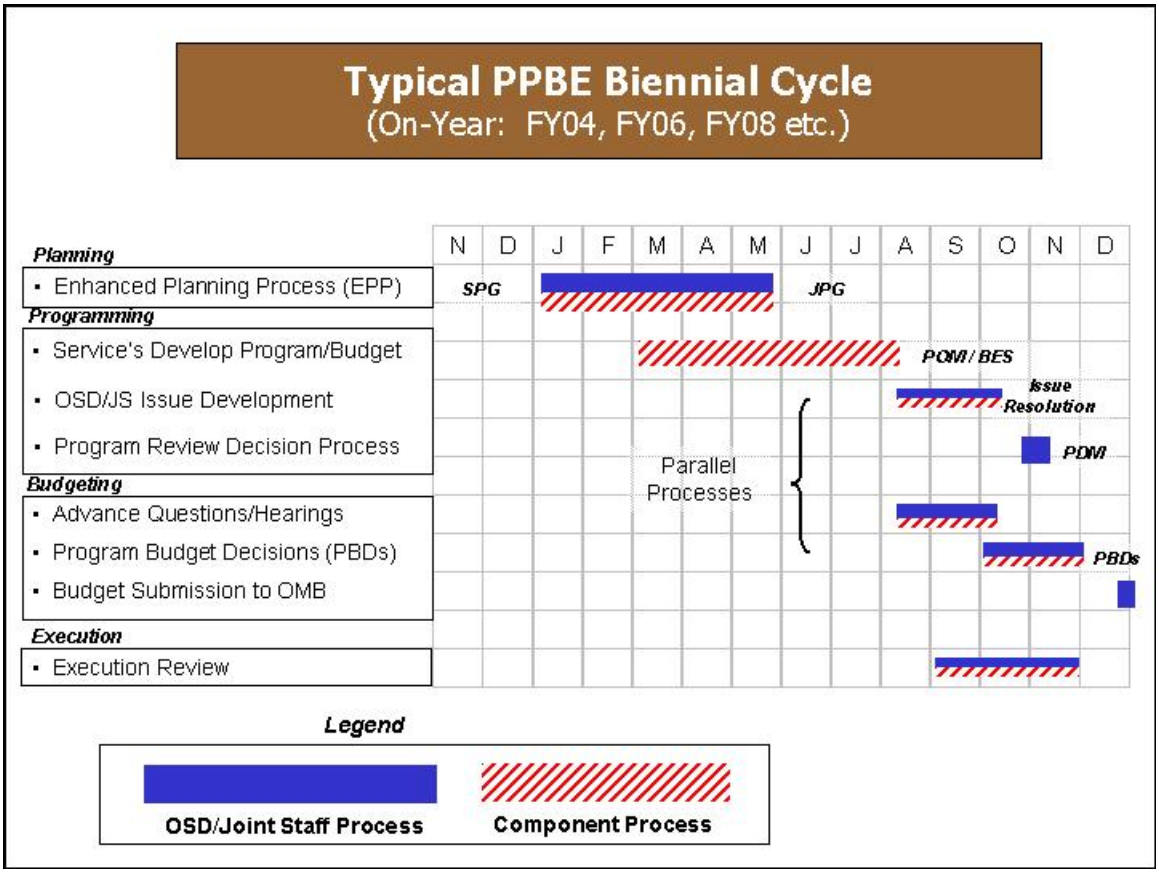

Figure 2. Typical PPBE Biennial Cycle, "On-Year"

In practice, Congress does not actually provide the Department with biennial appropriations. An amended budget justification must be submitted for the second year of the original biennial request so that Congress will appropriate funds for that second year. The Department uses a restricted process in the off-year to develop an amended budget that allows for only modest program or budget adjustments. Figure 3 displays a nominal timeline for the limited off-year process.

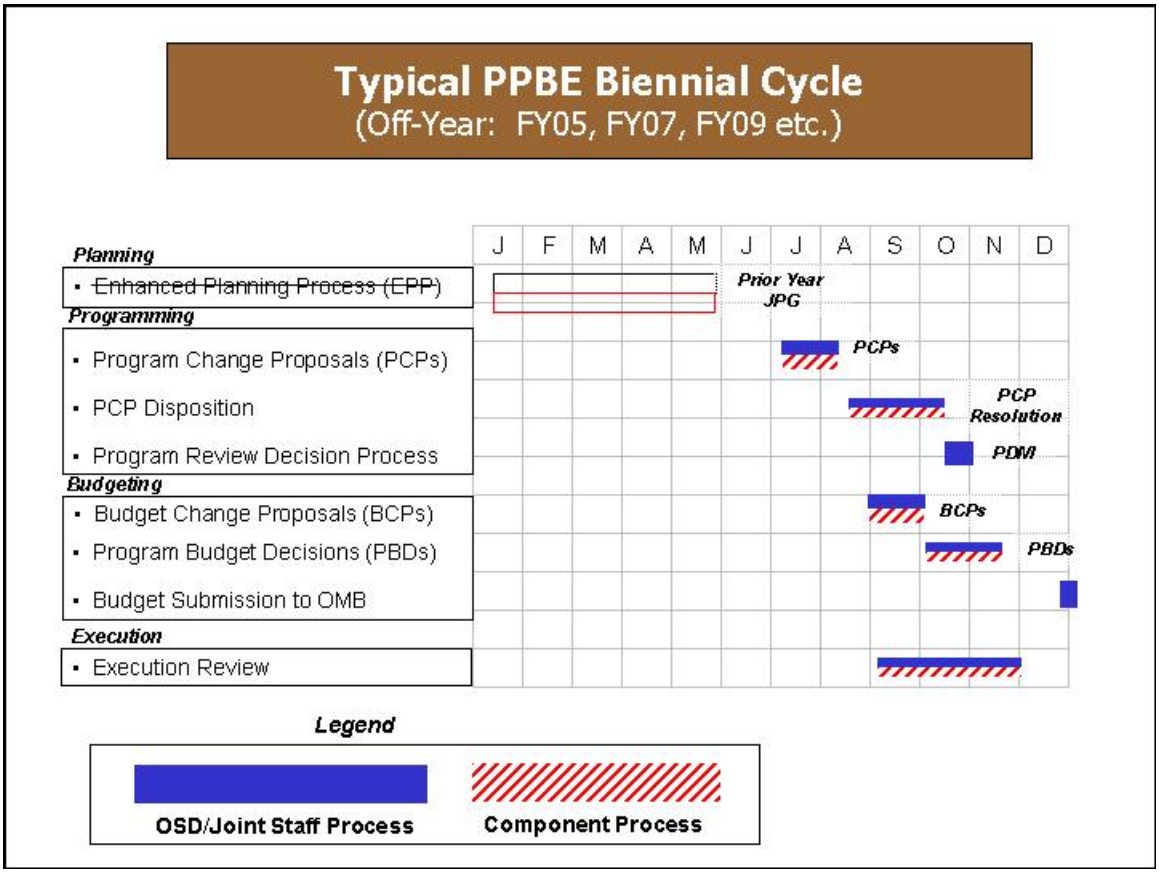

Figure 3. Typical PPBE Biennial Cycle, "Off-Year"

In the off-year, there are no significant changes to policy, strategy, or fiscal guidance. In fact, there may be no issuance of revised Joint Programming Guidance. If revised Joint Programming Guidance is provided, it would only contain minor revisions (although it could direct studies to support major decisions on strategy or program choices for the following Strategic Planning Guidance or Joint Programming Guidance). In addition, in the off-year, the DoD Components do not provide revised POMs or budget estimates. Instead, the DoD Components are allowed to submit Program Change Proposals (PCPs) and/or Budget Change Proposals (BCPs) to account for fact-of-life changes (e.g., program cost increases or schedule delays). BCPs and PCPs are limited to a single issue and must identify resource reductions to offset any program or budget cost growth. PCPs address issues over a multi-year period, whereas BCPs address issues focused on the upcoming budget year. PCPs are reviewed in a manner similar to on-year program issues, and BCPs are resolved through the issuance and staffing of PBDs.

From a larger perspective, the biennial PPBE cycle is designed to support and implement policy and strategy initiatives for each new four-year Presidential administration. Figure 4 depicts alignment of the biennial PPBE cycle over a four-year term.

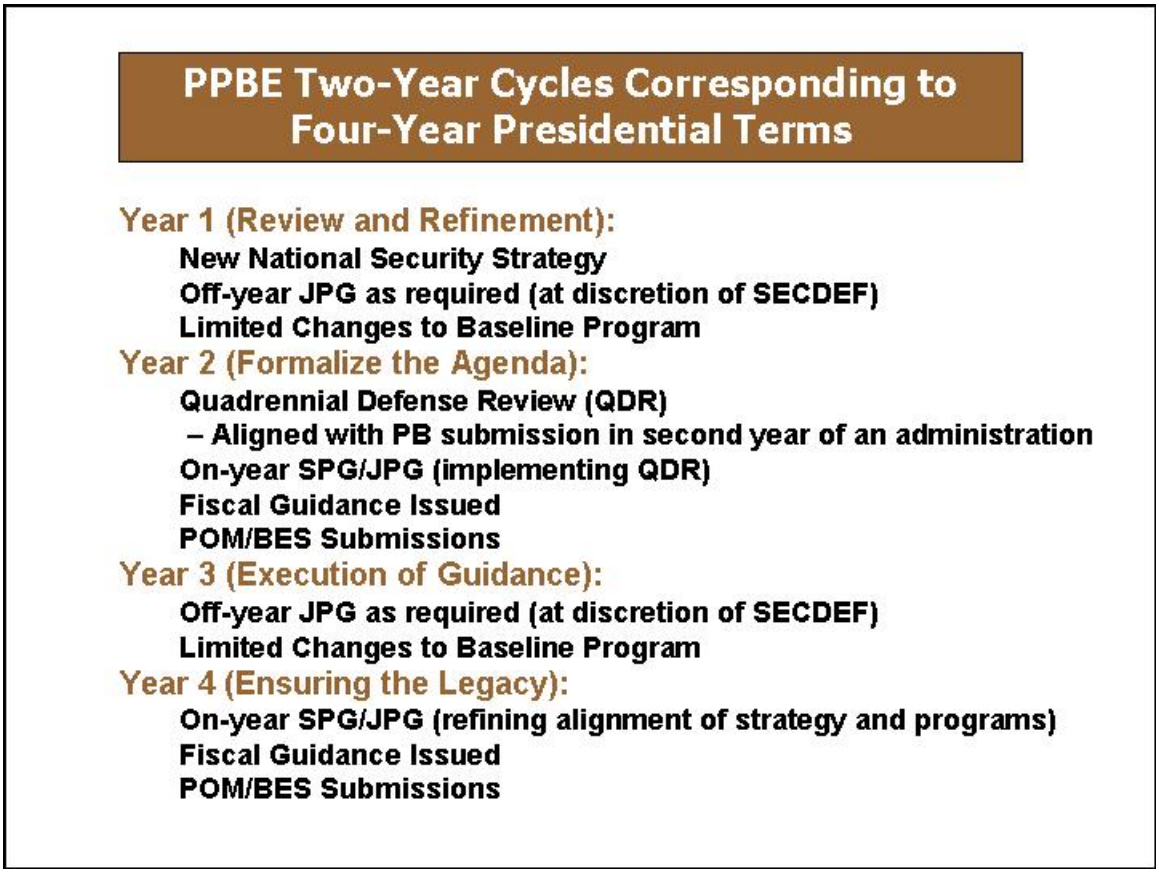

Figure 4. PPBE Two-Year Cycles Corresponding to Four-Year Presidential Terms

In the first year of the administration, the President approves a new National Security Strategy, which establishes (1) the worldwide interests, goals, and objectives that are vital to the national security, and (2) the foreign policy, worldwide commitments, and national defense capabilities necessary to implement the national security goals and objectives. Once the new administration's National Security Strategy is established, the Secretary of Defense, in consultation with the Chairman of the Joint Chiefs of Staff, leads the Quadrennial Defense Review (QDR). The QDR is a comprehensive review of all elements of defense policy and strategy needed to support the national security strategy. The defense strategy is then used to establish the plans for military force structure, force modernization, business processes and supporting infrastructure, and required resources (funding and manpower). The QDR final report is provided to Congress in the second year of the administration. In the PPBE process, the QDR final report serves as the foundation document for defense strategy and business policy. Since this document is not available until the second year, the first year of the administration is treated as an off-year, using the President's Budget inherited from the previous administration as a baseline. In the second year, which is treated as an on-year, the Strategic Planning Guidance and Joint Programming Guidance are rewritten to implement the QDR of the new administration.

1.3. Joint Capabilities Integration and Development System

The Joint Capabilities Integration and Development System (JCIDS) is a joint-concepts-centric capabilities identification process that allows joint forces to meet future military

challenges. The JCIDS process assesses existing and proposed capabilities in light of their contribution to future joint concepts. JCIDS, supported by robust analytic processes, identifies capability gaps and potential solutions. While JCIDS considers the full range of doctrine, organization, training, materiel, leadership and education, personnel and facilities (DOTMLPF) solutions, for purposes of this Guidebook, the principle focus remains on the pursuit of "materiel" solutions.

JCIDS acknowledges the need to project and sustain joint forces and to conduct flexible, distributed, and highly-networked operations. JCIDS is consistent with the DoD Directive 5000.1 charge for early and continuous collaboration throughout the Department of Defense. JCIDS implements a capabilities-based approach that leverages the expertise of government agencies, industry, and academia. JCIDS encourages collaboration between operators and materiel providers early in the process, and enhances the ability of organizations to influence proposed solutions to capability shortfalls. JCIDS defines interoperable, joint capabilities that will best meet the future needs. The broader DoD acquisition community must then deliver these technologically sound, sustainable, and affordable increments of militarily useful capability to the warfighters.

The revolutionary transformation to JCIDS, coupled with the evolutionary emergence of a more flexible, responsive, and innovative acquisition process should produce better integrated and more supportable military solutions; a better prioritized and logically-sequenced delivery of capability to the warfighters, despite multiple sponsors and materiel developers; and an improved Science and Technology-community focus on future warfighting capability needs.

JCIDS informs the acquisition process by identifying, assessing, and prioritizing joint military capability needs; these identified capability needs then serve as the basis for the development and production of acquisition programs. JCIDS is fully described in an instruction (CJCS Instruction 3170.01) signed by the Chairman of the Joint Chiefs of Staff. This instruction establishes the policies for JCIDS, and provides a top-level description of the process. A supplementary manual (CJCS Manual 3170.01) provides the details necessary for the day-to-day work in identifying, describing, and justifying joint warfighting capabilities. The manual also includes the formats that describe the content required for each JCIDS document.

For major defense acquisition programs or major automated information systems subject to OSD oversight, the products of the JCIDS process directly support the Defense Acquisition Board and Information Technology Acquisition Board in advising the Milestone Decision Authority for major milestone decisions. Figure 5 is a simplified portrayal of the nature of this support. JCIDS provides similar support to other acquisition programs, regardless of the milestone decision authority. Where appropriate, the JCIDS process and its products may be tailored when applied to automated information systems.

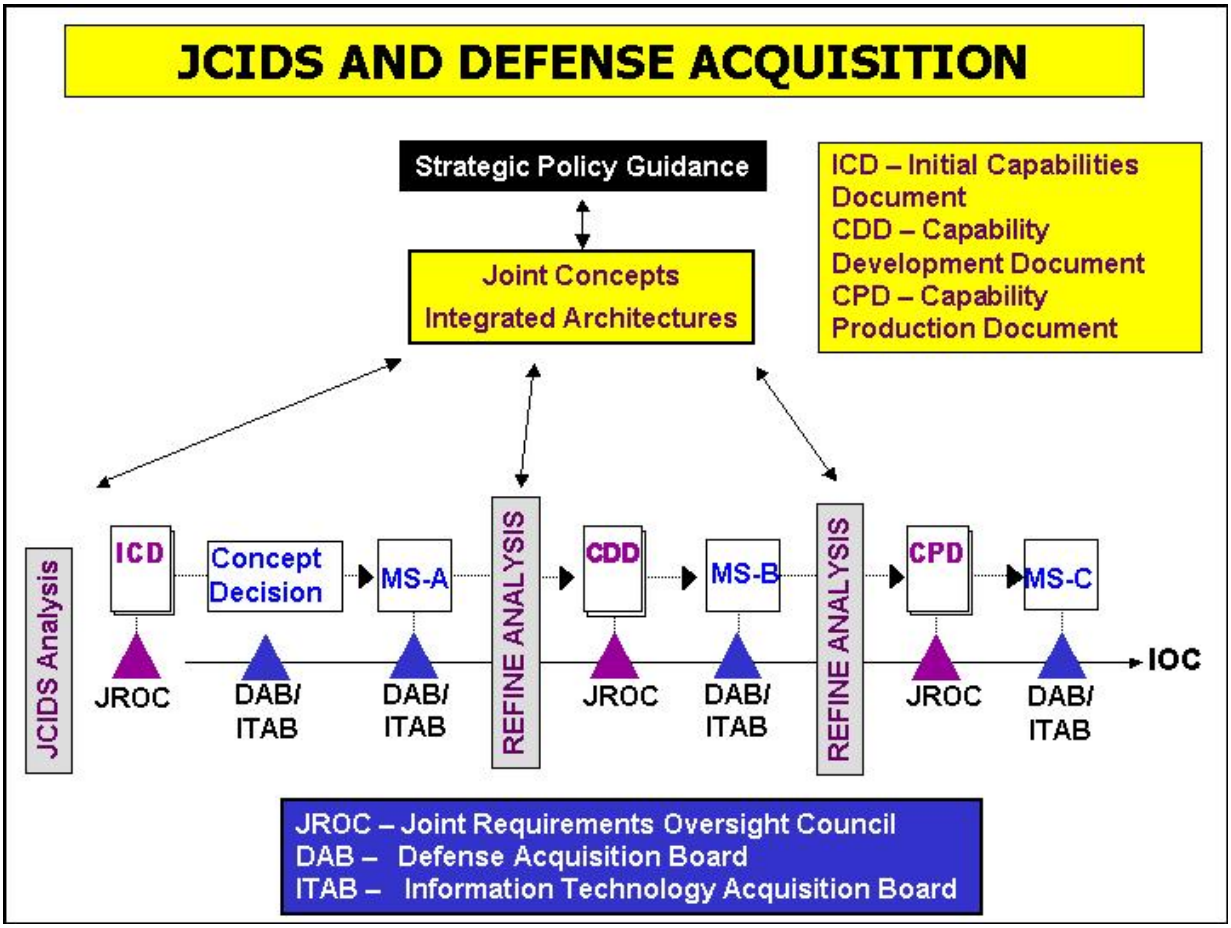

Figure 5. JCIDS and Defense Acquisition

There are several key points portrayed in Figure 5. First, JCIDS is based on a series of top-down analyses ultimately derived from formal strategic-level guidance, including the National Security Strategy, National Military Strategy, Joint Vision 2020, and the report of the Quadrennial Defense Review. Second, these analyses assess existing and proposed capabilities in terms of their contribution to emerging joint warfighting concepts. Moreover, rather than focusing on the capabilities of individual weapon systems in isolation, the analyses assess capabilities in the context of integrated architectures of multiple interoperable systems. Third, from these overarching concepts, the JCIDS analysis process identifies capability gaps or shortcomings, and assesses the risks associated with these gaps. These gaps may be addressed by a combination of materiel and/or non-materiel solutions (non-materiel solutions would be changes to doctrine, organization, training, leadership and education, personnel, and facilities). Fourth, recommended materiel solutions, once approved, lead to acquisition programs. For such programs, at each acquisition milestone, JCIDS documents are provided that will guide the subsequent development, production and testing of the program. Further information on the JCIDS analysis process, as well as the nature and role of each of the JCIDS documents, can be found in CJCS Instruction 3170.01, Enclosure A.

For Acquisition Category I and IA programs, and other programs designated as high-interest, the Joint Requirements Oversight Council (JROC) reviews and validates all JCIDS

documents under its purview. For ACAT ID and IAM programs, the JROC makes recommendations to the Defense Acquisition Board or Information Technology Acquisition Board, based on such reviews. JROC responsibilities are established by law (10 U.S.C. 181). The JROC is chaired by the Vice Chairman of the Joint Chiefs of Staff, who importantly also serves as the co-chair of the Defense Acquisition Board. The other JROC members are the Vice Chiefs of each military service.

1.4. Defense Acquisition System

The Defense Acquisition System is the management process that guides all DoD acquisition programs. DoD Directive 5000.1, *The Defense Acquisition System*, provides the policies and principles that govern the defense acquisition system. DoD Instruction 5000.2, *Operation of the Defense Acquisition System*, in turn establishes the management framework that implements these policies and principles. The Defense Acquisition Management Framework provides an event-based process where acquisition programs proceed through a series of milestones associated with significant program phases. Details on the milestones and program phases are found in section 3 of the instruction. The instruction also identifies the specific statutory and regulatory reports and other information requirements for each milestone and decision point.

One key principle of the defense acquisition system is the use of acquisition program categories, where programs of increasing dollar value and management interest are subject to more stringent oversight. Specific dollar and other thresholds for these acquisition categories are contained in DoD Instruction 5000.2, Enclosure 2. The most expensive programs are known as Major Defense Acquisition Programs (MDAPs) or as Major Automated Information Systems (MAISs). These major programs have the most extensive statutory and regulatory reporting requirements. In addition, some elements of the defense acquisition system are applicable only to weapon systems, some are applicable only to automated information systems, and some are applicable to both. Specific details are found in DoD Instruction 5000.2, Enclosure 3.

An MDAP or a MAIS is subject to review by specific senior officials in the Office of the Secretary of Defense, unless delegated to a lower level of review (usually the DoD Component Head or Acquisition Executive). For the programs reviewed at the OSD level, MDAPs are denoted as Acquisition Category ID and are subject to review by the Under Secretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L)); MAISs are denoted as Acquisition Category IAM and are subject to review by the Assistant Secretary of Defense for Networks and Information Integration/DoD Chief Information Officer (ASD(NII)/DoD CIO). These individuals are each the Milestone Decision Authority for their respective programs. Both individuals are supported by a senior advisory group, either the Defense Acquisition Board for MDAPs, or the Information Technology Acquisition Board for MAISs. Senior officials from the Joint Staff, the Military Departments, and staff offices within OSD comprise these boards.

Both Boards are further supported by a subordinate group in OSD known as an Overarching Integrated Product Team (OIPT). Each OIPT facilitates communication and vets issues before the Defense Acquisition Board or Information Technology Acquisition Board meets. In this facilitator's role, the OIPT charters Working-level Integrated Product Teams for each review and manages their activities. At the Milestone Decision Point, the OIPT leader provides the Defense Acquisition Board or Information Technology Acquisition Board members with an integrated assessment of program issues gathered through the Integrated Product Team process as well as various independent assessments.